

REMARKS

Claims 73-91 and 94-100 are pending in the present application. Claims 92-93 were withdrawn from consideration. Claims 101 and 102 were cancelled.

Further to Applicants' Amendment After Final, submitted on December 9, 2004, and Applicants' Supplemental Amendment After Final, submitted on December 13, 2004, Applicants have amended claims 73, 79 and 95. Support for the amendments is found in the specification, including on page 28, Section F, and the data in Figure 10.

In the Advisory Action, the Examiner withdrew the enablement rejection of claim 82, but maintained this rejection with respect to the other claims. The Examiner asserted that the claims other than claim 82 do not require that the recited Pz crystals include metal electrodes, and thus are not enabled. Specifically, the Examiner stated that "[w]hile claim 82 provides this limitation, none of the other claims depend from this claim. Thus, the limitations of claim 82 are not of necessity part of the other claimed inventions. Because there is no requirement in the other claims that the Pz crystals include metal electrodes, and because the presence of claim 82 indicates that the other claims do not require the limitations set forth in this dependent claim, the rejection is maintained." The Examiner's rejection is traversed for the following reasons.

First, claim 82 recites three different embodiments for immobilizing the antigen or antibody onto the Pz crystal, each of which is directed to a different application of "a metal electrode" on the crystal. However, there is nothing in claim 82 that indicates that the recited

“metal electrode” is being added as a limitation to the base claims, and that the base claims thus do not require a metal electrode.

Second, it is clear from the specification, including the description at page 10, lines 4-23, and Figure 1, that metal electrodes are necessary for inducing resonant frequencies in the Pz devices used in the invention. Moreover, claim 73 expressly recites in steps (a) and (c) “measuring the resonant frequenc[ies]” of the Pz crystal, and in step (d) “comparing the resonant frequenc[ies]” measured in steps (a) and (c). The “resonant frequencies” of the Pz crystal are made possible because of the metal electrode, as would be understood by persons skilled in the art. Therefore, the claims other than claim 82 also are enabled for the above reasons, and need not be amended. Applicants respectfully ask that the rejections be withdrawn.

Further to the above, Applicants also have amended claim 79 to remove the word “further” so that claim 79 also correctly reflects Applicants’ position above.

In the Advisory Action, the Examiner also maintained that the claims are obvious because veterinary uses for the Pz devices are obvious. The Examiner also cited a new reference, U.S. Pat. No. 5,306,644, in support of his position. The Examiner stated that “[b]ecause the art teaches all of the claimed method limitations, and because it is known in the art that immunoassays may be applied for veterinary diagnosis, the teachings of the cited references render obvious the claimed methods and kits.”

The ‘644 patent does state that the “method is also useful in veterinary and medical diagnostics.” (col. 16, lines 27-28). However, the ‘644 patent, alone or in combination with the

other art of record, fails to teach or suggest, and thus render obvious, the claimed invention with the limitation in step (b) of claim 73, as amended, that the crystal be contacted “with a biological specimen from said animal to be tested, wherein said Pz crystal was previously used in a test on a different biological specimen which was negative for said infectious agent;”. In contrast, the ‘644 patent states at column 9, lines 42-44, that the devices described therein “may be utilized once, used repeatedly, or used repeatedly with periodic refreshment.” However, “refreshment” refers to regenerating the Pz crystal, that is, dissociating the bound analyte from the device using one or more of a variety of methods, including introduction of chemicals, dielectric changes or application of energy, such as light, heat, sound, etc. (Col. 10, lines 15-21). This “refreshment” (i.e., regeneration) does not teach or suggest the claimed method and its requirement that the Pz crystal be “previously used in a test on a different biological specimen which was negative for said infectious agent.”

With respect to “repeated use,” the ‘644 patent describes only cumulative sampling, in which the same sample is exposed to the crystal repeatedly, to obtain a measurement of a cumulative response to a given analyte or set of analytes. (See paragraph bridging columns 9 and 10). Nowhere, however, does the ‘644 patent teach or suggest reusing a crystal in a subsequent test on a different specimen after the crystal had been used in a previous test yielding a negative result for the infectious agent. Without such teaching, one would not recognize the advantages of the claimed use of a Pz crystal for veterinary uses, specifically in which the crystal is reused after

being previously used in a test on a different specimen which was negative for the infectious agent.

In short, neither the '644 patent nor any of the other art of record recognizes the claimed feature above, and thus the advantages of the claimed invention for performing immunodiagnostic testing for a veterinary disease in an animal. These advantages were discussed in Applicants' Amendment of December 9, 2004. What Applicants stated therein is still true now: The cited art, alone or in combination, simply does not recognize or appreciate a link – as the inventors have – between reusability of the Pz sensor after coming into contact with a negative sample and the advantages of such a reusable sensor for veterinary applications.

Finally, Applicants are submitting a new reference (and translation) which was cited by the Chinese Patent Office in connection with the corresponding Chinese application. Like all of the other art of record, this new reference also fails to teach or suggest the novel and important feature of the claimed invention, as amended, which is the reusability of the Pz crystal which “was previously used in a test on a different biological specimen which was negative for said infectious agent.”

For the above reasons, the claimed invention, as amended, is not obvious over the art of record. Applicants thus ask that the rejection be withdrawn.

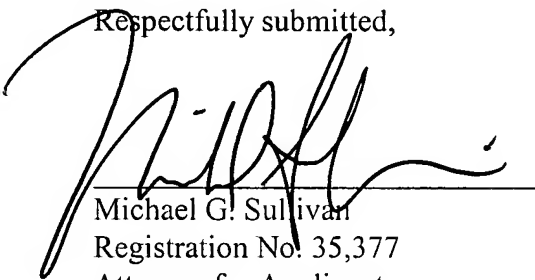
Reconsideration of the instant application and early notice of allowance are requested. The Examiner is invited to telephone the undersigned if it will expedite allowance of the application.

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In the event this paper is not considered to be timely filed, Applicants respectfully petition for an appropriate extension of time. Any fee for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to Counsel's Deposit Account No. 02-2135.

February 8, 2005

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael G. Sullivan", written over a horizontal line.

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